

Access Road – 560 DOCUMENTATION

I. Reference Materials

The following is a partial listing of reference materials to be used in Access Road design and construction.

- a. Soil Survey Report
- b. North Dakota Construction and Material Specifications or Conservation Practices
- c. Section IV Technical Guide, Practice Standard 560, Access Road (ft.)
- d. Engineering Field Manual - Chapter 1
- e. Technical Release #62
- f. Section 19, National Engineering Handbook
- g. National Operation & Maintenance Manual

II. Site Investigation

The following is a partial listing of items to be checked in the field:

- a. Check for buried utilities.
- b. Check soils and review soil survey data.
- c. Determine engineering job class.
- d. Determine affects access road will have on drainage patterns.

III. Design Surveys

Survey notes shall be kept in loose-leaf or bound field notebooks. The notes will be kept in a format similar to that shown in Technical Release 62, and Chapter I, Engineering Field Manual.

IV. Design

The design of an access road will be in accordance with Standard and Specification 560, Access Road, Section IV, Technical Guide.

V. Construction Plans and Specifications

The plan will contain, as a minimum, the following:

- a. Overall Plan View.
- b. Profile - Show original ground at road centerline and proposed road grade.
- c. Cross Sections - Show typical cross sections for each reach.
- d. Construction Notes - Provide necessary notes to clarify or furnish direction in construction.
- e. Quantities - Provide estimates.
- f. Job Approval

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Construction specifications are to be provided with each set of plans. The North Dakota Construction and Material Specifications for Conservation Practices shall be used for each item of work and material, as applicable or available. Additional specifications may need to be written to provide full material and installation instructions. A cover sheet and list of specifications is to be provided with the specifications.

VI. Layout

Layout surveys will be recorded in loose-leaf or bound survey books. Set necessary stakes for alignment, grade, and slope stakes. Survey notes will be kept in the format as shown in Chapter 1, Engineering Field Manual and/or Technical Release 62.

VII. Compliance Checking - As-Built Plans

a. Compliance Checking

- (1) Take sufficient cross sections to ascertain compliance with design.
- (2) Check lengths of culverts and where appropriate, number of end sections.
- (3) Check all quantity computations.
- (4) Provide statement of compliance on "as-built" plans - state the construction is complete according to plans and specifications. Date and sign by individual making determination.
- (5) Check ND-ENG-54 for prequalified materials and/or check certifications. Applicable materials would be pipe, end sections, etc.
- (6) The key items to inspect on access roads are:
 - (a) Embankment compaction
 - (b) Road top width, grade compliance, and side slopes.
 - (c) Seeding
 - (d) Pipe installations

b. "As-Built" Plans

As-built plans are a record of constructed facilities. Changes from design are to be superimposed in a different color on the official file copy of the plans. On the as-builts show:

- (1) Significant design changes.
- (2) Final Quantities
- (3) Identify "as-built" on plans.